

Ardillon and U.S. Patent No. 5,534,314 to Wadley, either alone or in combination with one or more of the following: U.S. Patent No. 5,945,967 to Rallison, U.S. Patent No. 6,495,198 to Peng, U.S. Patent No. 6,537,607 to Swanson, U.S. Patent No. 5,921,836 to Nanto, U.S. Patent No. 4,672,265 to Eguchi, and U.S. Patent No. 6,294,892 to Utsugi. The Applicant respectfully traverses the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

There is no proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Antoniadis, Nagashima, Onitsuka, Burrows, Ardillon and Wadley, either alone or in combination with one or more of Rallison, Peng, Swanson, Nanto, Eguchi and Utsugi or to combine reference teachings to achieve the claimed invention. MPEP § 2142 states that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. It is respectfully submitted that the Official Action has failed

to carry this burden. While the Official Action relies on various teachings of the cited prior art to disclose aspects of the claimed invention and asserts that these aspects could be used together, it is submitted that the Official Action does not adequately set forth why one of skill in the art would combine the references to achieve the features of the present invention.

The test for obviousness is not whether the references "could have been" combined or modified as asserted in the Official Action, but rather whether the references should have been. As noted in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (emphasis in original). Thus, it is respectfully submitted that the standard set forth in the Official Action is improper to support a finding of *prima facie* obviousness.

Independent claims 1-4, 21, 22 and 38 recite evaporating the organic electroluminescence material in an inert gas atmosphere at an atmospheric pressure by heating the evaporation cell, and independent claim 51 similarly recites evaporating the organic material in an inert gas atmosphere at an atmospheric pressure by heating the evaporation cell.

The Official Action asserts that "Burrows discloses organic material is known and suitable in the art to be evaporated at atmospheric pressure using resistive heating" (page 5, Paper No. 20071106). Without any specific references to Burrows or the other prior art references in support and without statements which establish the level of ordinary skill in the art at the time of the present invention, the Official Action asserts that "it would have been obvious ... to have heated the crucible at atmospheric pressure as suggested by Burrows with a reasonable expectation of successfully providing a film because Burrows discloses atmospheric pressure is known and suitable in the art to evaporate organic material" (page 6, Id.). The Applicant respectfully disagrees and traverses the above assertions in the Official Action.

Initially, the Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. § 103 should be made explicit (KSR International Co. v. Teleflex Inc., 550 U.S. ___, 82 USPQ2d 1385). The Court quoting In re Kahn (441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)) stated that “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” KSR, 550 U.S. at ___, 82 USPQ2d at 1396. In the present application, the Official Action appears to contain mere conclusory statements, for example, at page 6, lines 6-10 (Paper No. 20071106), and the Official Action has not set forth articulated reasoning with some rational underpinning to support the assertion of *prima facie* obviousness.

In any event, Burrows is not related to a light-emitting device. Specifically, Burrows is not related to a method of manufacturing a light-emitting layer comprising an organic electroluminescence material. Rather, Burrows appears to be directed to growth of thin films of optically non-linear organic salts (DAST). Burrows merely teaches that “[a] volatile precursor of each component of the salt is carried as a vapor to a hot-wall reaction chamber by independently controlled streams of carrier gas” and that “[t]he components react to form a polycrystalline thin film on substrates of glass and gold” (abstract).

MPEP § 2141.01(a) states the following:

The examiner must determine what is “analogous prior art” for the purpose of analyzing the obviousness of the subject matter at issue. “In order to rely on a reference as a basis for rejection of an applicant’s invention, the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.” In re Oetiker, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also In re Deminski, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); In re Clay, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992).

Burrows is not in the field of the Applicant’s endeavor, is not reasonably pertinent to the particular problem with which the inventor is concerned, and would not have

logically commended itself to an inventor's attention in considering the problem. Specifically, the Applicant respectfully submits that growth of thin films of optically non-linear organic salts is not reasonably pertinent to at least Antoniadis, Nagashima, Onitsuka, Ardaillon and Wadley or the features of the present invention.

Also, the Official Action has not shown that Ardaillon is in the field of applicant's endeavor or that Ardaillon is reasonably pertinent to the particular problem with which the Applicant is concerned. Ardaillon is not related to film formation but appears to be directed to distillation. Specifically, Ardaillon appears to teach an evaporation of an organic solvent, and the evaporation is performed to obtain an emulsion containing less than about 0.5% organic solvent (column 3, lines 45-68). The Applicant respectfully submits that the distillation process of Ardaillon is not reasonably pertinent to Antoniadis, Onitsuka, Burrows and Wadley or the features of the present invention. Therefore, the Official Action may not rely on Ardaillon as a basis for rejection, and the Applicant respectfully submits that there is no reason to combine Ardaillon with the other cited references.

Further, regarding Wadley, please incorporate the arguments presented at pages 17-18 of the *Amendment* filed April 9, 2007, and at pages 17-19 of the *Amendment* filed October 23, 2006. In addition, the Applicant notes that Wadley may disclose that evaporation via resistive heating is operable for materials that have a low melting point at column 7, lines 24-35. However, regardless of this description, Wadley is related to an e-beam evaporation. For example, the Official Action asserts that Wadley teaches an evaporation method at atmospheric pressure, but the evaporation method is related to e-beam evaporation using a water-cooled crucible. The Official Action has not provided a reason why Wadley's evaporation using a water-cooled crucible could or should be applied to the process of the alleged combination of Antoniadis, Nagashima, Onitsuka, Burrows and Ardaillon. The Official Action appears to pick and choose in a piecemeal fashion isolated features from multiple disparate references to support the rejection without providing sufficient reason for the alleged combination.


Therefore, the Applicant respectfully submits that the Official Action has not provided a proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Antoniadis, Nagashima, Onitsuka, Burrows, Ardaillon and Wadley, either alone or in combination with one or more of Rallison, Peng, Swanson, Nanto, Eguchi and Utsugi or to combine reference teachings to achieve the claimed invention.

In the present application, it is respectfully submitted that the prior art of record, either alone or in combination, does not expressly or impliedly suggest the claimed invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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